

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 5, 6, and 8-11 and CANCEL claims 2-4 and 7 in accordance with the following:

1. (Currently Amended) An apparatus for a wireless base station for use in a wireless local area network (LAN) sharing one frequency channel, said apparatus being adapted to communicate with a plurality of wireless terminals in a plurality of sectors, said apparatus comprising:

a communication control unit, and
a plurality of transceivers associated with said sectors, respectively,
said transceivers having respective directive antennas associated with said respective sectors, wherein,

during a first period of time, said communication control unit causes all of said transceivers in all of said sectors to transmit and receive RF signals at said frequency channel to and from said plurality of wireless terminals, determines locations of said wireless terminals in the sectors, in accordance with identification codes of said wireless terminals and with identifications of said transceivers which receive said identification codes, and stores, in a location management table, information indicating which wireless terminals are located in each sector,

during a ~~first~~second period of time subsequent to said first period of time, said communication control unit enables one or more of said plurality of transceivers that are associated with respective one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~transmit and receive RF signals at said frequency channel to and from wireless terminals, and said communication control unit disables remaining one or more transceivers other than said enabled one or more transceivers, from ~~communicating with~~transmission to wireless terminals, and ~~wherein, and,~~

during a ~~second~~third period of time subsequent to said ~~first~~second period of time, said communication control unit enables further one or more of said plurality of transceivers that are

associated with respective further one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~transmit and receive RF signals at said frequency channel to and from wireless terminals, said further one or more transceivers being disabled in said ~~first~~second period of time from ~~communicating~~transmitting, and said communication control unit disables further remaining one or more transceivers other than said enabled further one or more transceivers, from ~~communicating with~~transmission to wireless terminals-, wherein,

a predetermined length of time before the change to said third period of time, said transceiver which is enabled to transmit and receive RF signals starts detection of a transmitted RF signal in a corresponding sector, and broadcasts a packet indicative of disabling of transmission during said third period of time and indicative of a length of said third period of time to wireless terminals in a corresponding sector, when said transceiver does not receive an RF signal.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The apparatus according to claim 1, wherein, during a ~~third~~said first period of time, said communication control unit causes all of said transceivers to transmit, in all of said sectors, a packet addressed to one of said wireless terminals, whose current location in the sectors is unknown.

6. (Currently Amended) The apparatus according to claim 1, wherein, during said ~~first~~second period of time, in one of said plurality of sectors, when one of said plurality of transceivers receives an identification code of one of said plurality of wireless terminals which has been located in another sector, from said one wireless terminal, said communication control unit stores said identification code of said one wireless terminal into said location management table in association with said one sector.

7. (Cancelled)

8. (Currently Amended) A wireless terminal for use in a wireless LAN sharing one

frequency channel, said wireless terminal being adapted to communicate with a wireless base station in any one of a plurality of sectors, said wireless terminal comprising:

a control unit and a transceiver, wherein

said control unit causes said transceiver to transmit a response packet containing an identification code of said wireless terminal to said wireless base station in response to a polling packet received from said wireless base station during a first period of time,

said control unit causes said transceiver to transmit and receive RF signals at said frequency channel to and from ~~for communicating with~~ said wireless base station during a ~~first~~ second ~~period of time, and~~

said control unit allows said transceiver to receive ~~for receiving a~~ broadcast packet containing a description representative ~~indicative of disabling of transmission during a third~~ period of time subsequent to said second period of time and indicative of a length of a ~~seconds~~ said third period of time subsequent to said first period of time, when said receiver does not transmit an RF signal, and for disabling ~~disables said transceiver from~~ transmission during said ~~second~~ third ~~period of time.~~

9. (Currently Amended) A ~~program-product~~ computer readable storage embodying a method for an apparatus for a wireless base station for a wireless LAN sharing one frequency channel, said apparatus being adapted to communicate with a plurality of wireless terminals in a plurality of sectors, said ~~program~~ method being operable to effect the steps of:

during a first period of time, causing all of a plurality of transceivers in all of said sectors to transmit and receive RF signals at said frequency channel to and from said plurality of wireless terminals, determining locations of said wireless terminals in said sectors, in accordance with identification codes of said transceivers which receive said identification codes, and storing, in a location management table, information indicating which wireless terminals are located in each sector,

during a ~~first~~ second ~~period of time subsequent to the first period of time, enabling one or more of said plurality of transceivers that are associated with respective one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~ transmit and receive RF signals at said frequency channel to and from wireless terminals, and disabling remaining one or more transceivers other than said enabled one or more transceivers, from ~~communicating with~~ transmission to wireless terminals; and,~~

during a ~~second~~ third ~~period of time subsequent to said ~~first~~ second ~~period of time,~~ enabling further one or more of said plurality of transceivers that are associated with respective~~

further one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~ transmit and receive RF signals at said frequency channel to and from wireless terminals, said further one or more transceivers being disabled in said ~~first~~second period of time from ~~communicating~~transmission, and disabling further remaining one or more transceivers other than said enabled further one or more transceivers, from ~~communicating with~~ transmission to wireless terminals-, wherein

a predetermined length of time before the change to said third period of time, said transceiver which is enabled to transmit and receive RF signals starts detection of a transmitted RF signal in a corresponding sector, and broadcasts a packet indicative of disabling of transmission during said third period of time and indicative of a length of said third period of time to wireless terminals in a corresponding sector, when said transceiver does not receive an RF signal.

10. (currently Amended) A method for communication in an apparatus for a wireless base station for a wireless LAN sharing one frequency channel, said apparatus being adapted to communicate with a plurality of wireless terminals in a plurality of sectors, said method comprising the steps of:

during a first period of time, causing all of a plurality of transceivers in all of said sectors to transmit and receive RF signals at said frequency channel to and from said plurality of wireless terminals, determining locations of said wireless terminals in said sectors, in accordance with identification codes of said transceivers which receive said identification codes, and storing, in a location management table, information indicating which wireless terminals are located in each sector,

during a ~~first~~second period of time subsequent to the first period of time, enabling one or more of said plurality of transceivers that are associated with respective one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~ transmit and receive RF signals at said frequency channel to and from wireless terminals, and disabling remaining one or more transceivers other than said enabled one or more transceivers, from ~~communicating with~~ transmission to wireless terminals; and,

during a ~~second~~third period of time subsequent to said ~~first~~second period of time, enabling further one or more of said plurality of transceivers that are associated with respective further one or more of said plurality of sectors that are not adjacent to each other, to ~~communicate with~~ transmit and receive RF signals at said frequency channel to and from wireless terminals, said further one or more transceivers being disabled in said ~~first~~second

period of time from ~~communicating~~transmission, and disabling further remaining one or more transceivers other than said enabled further one or more transceivers, from ~~communicating with~~transmission to wireless terminals, wherein

a predetermined length of time before the change to said third period of time, said transceiver which is enabled to transmit and receive RF signals starts detection of a transmitted RF signal in a corresponding sector, and broadcasts a packet indicative of disabling of transmission during said third period of time and indicative of a length of said third period of time to wireless terminals in a corresponding sector, when said transceiver does not receive an RF signal.

11. (Currently Amended) A method for communication in a wireless terminal for a wireless LAN sharing one frequency channel, having a transceiver, said wireless terminal being adapted to communicate with a wireless base station in any one of a plurality of sectors, said method comprising:

causing said transceiver to transmit a response packet containing an identification code of said wireless terminal to said wireless base station in response to a polling packet received from said wireless base station during a first period of time,

~~communicating with~~causing said transceiver to transmit and receive RF signals at said frequency channel to and from said wireless base station during a first period of time,

~~receiving~~causing said transceiver to receive a broadcast packet containing a description representative indicative of disabling of transmission during a third period of time subsequent to said second period of time and indicative of a length of a second~~said third~~period of time subsequent to said first period of time, when said transceiver does not transmit an RF signal,
and

disabling said transceiver from transmission during said second~~third~~period of time.